

2019-2020

# Annual Report



Energy  
Efficiency  
Alberta



# Impact at a glance

Energy Efficiency Alberta has been providing value across the province since spring 2017, designing and delivering programs that are supporting Alberta’s businesses, industrial facilities, public institutions and households. In that time, a \$249 million\* investment from our programs has attracted \$559 million in additional private sector investments. These investments are creating 5,170 jobs and delivering \$952 million in economic growth for the province. Communities across the province have participated in our programs.

## Value from the start

**\$952M**

**IN ECONOMIC GROWTH**

for Alberta

**\$806M**

**LIFETIME SAVINGS**

through energy savings and emissions reductions

**6.8M**

**TONNES**

of avoided GHGs (tCO<sub>2</sub>e)

**3x ROI**

**TRIPLE THE RETURN ON INVESTMENT**

\$3 in savings for every \$1 invested by Energy Efficiency Alberta

**246K**

**PROJECTS**

**\$559M**

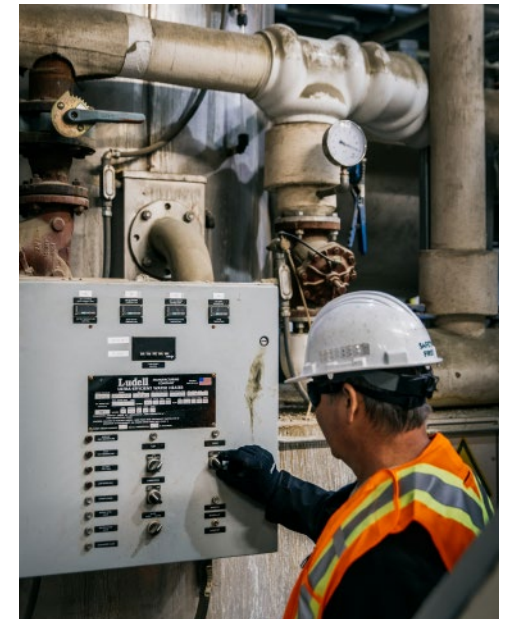
**IN PRIVATE SECTOR INVESTMENTS**

**5,170**

**JOBS BEING CREATED**

**237K**

**PARTICIPANTS**

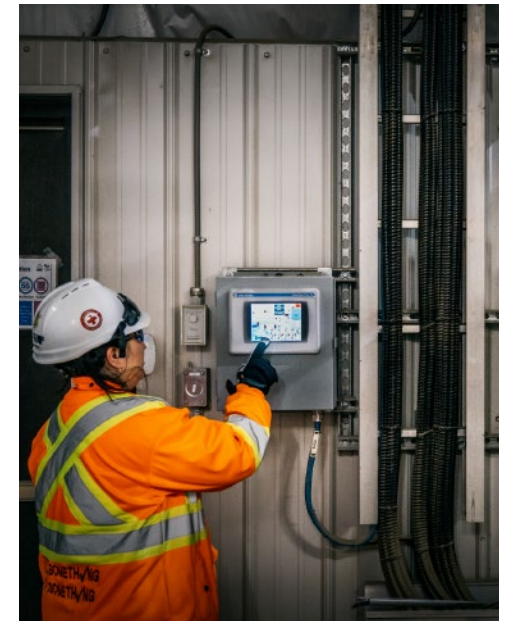


Figures are calculated since the start of Energy Efficiency Alberta programs in April 2017 to March 31, 2020. Performance results are for energy savings and greenhouse gas (GHG) reductions, calculated over the lifetime of the products installed. Energy savings and GHG figures have been reviewed and verified by a third party except for in-progress industrial and commercial custom projects. Numbers have been rounded so may not always add to 100 per cent.

\* Excludes other agency investments in complementary programs related to raising awareness, project grants, development of innovative financing tools, industry capacity building and agency administration. These investments support the agency's programs in each sector, and directly and indirectly generate additional cost savings and emissions reductions that are not currently quantified and reported.

# Industrial and commercial enterprises, non-profits and public institutions are more competitive and efficient

Since our agency began, Energy Efficiency Alberta has helped industrial facilities, businesses, institutions and non-profit organizations reduce energy use and operational costs. The strong participation across the commercial and industrial sectors, in particular, demonstrates that energy efficiency solutions are seen as a meaningful way to reduce energy use, stay competitive and improve the bottom line.



	LIFETIME ENERGY & CARBON SAVINGS	LIFETIME GHG EMISSIONS REDUCTIONS (M tCO <sub>2</sub> e)	# OF PROJECTS
INDUSTRIAL	\$46M	0.9	427
COMMERCIAL	\$135M	1.0	3,522
NON-PROFIT & INSTITUTIONAL	\$26M	0.2	903

**4,852**  
PROJECTS  
creating demand for

**1.2M**  
PRODUCTS PURCHASED

# A pivot to new offerings

In our first three years, Energy Efficiency Alberta implemented several incentive-based programs which jump-started efficiency investments across Alberta, from industrial and business to non-profit and residential sectors. Having raised awareness of the economic opportunities available through energy efficiency, we shifted focus in 2019-2020 to unleash the power of the private sector. With a retooled program offering, we are ensuring that Alberta will see a more competitive business sector, increased technology adoption, and more cost-effective public institutions through continued investments in energy efficiency.

Looking forward, the potential for future savings is vast. Albertans could save about \$1 billion per year in electricity through energy efficiency—a return on program investment of more than 6:1.\*

“The 2019-2020 fiscal year began with an election and ended with the onset of a pandemic. To say it was a year of change is an understatement. But what doesn’t change is the value of using energy efficiently, saving money and increasing productivity. With the support of our partners, we are defining an exciting new business model for our organization. We look forward to energy efficiency being part of Alberta’s economic recovery.”

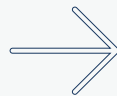


Monica Curtis, Chief Executive Officer, Energy Efficiency Alberta

## In 2019-2020

**\$57M\*\***

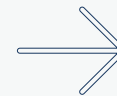
FROM ENERGY EFFICIENCY ALBERTA



encouraged

**\$170M**

IN PRIVATE SECTOR INVESTMENTS



resulting in

**34,079**

COMPLETED PROJECTS

\*\* Excludes other agency investments in complementary programs related to raising awareness, project grants, development of innovative financing tools, industry capacity building and agency administration. These investments support the agency's programs in each sector, and directly and indirectly generate additional cost savings and emissions reductions that are not currently quantified and reported.

# Report from the Board

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The Board of Directors continues to deliver on Energy Efficiency Alberta's three-part mandate that includes:

1. Raising awareness about energy use with Albertans.
2. Promoting, designing and delivering programs related to energy efficiency, energy conservation and the development of micro-generation and small-scale energy systems in Alberta.
3. Helping Alberta's energy efficiency industry grow to drive economic growth, diversify our economy and create local jobs.

The Board continues to deliver on the key goals outlined in the 2019-2020 Business Plan:

- Incentive-based programs were closed in an orderly and effective way, ensuring participants and trade allies were well supported through the process. These programs included Custom Energy Solutions, Business Energy Savings, Methane Emissions Reduction, Affordable Housing Energy Solutions, and Home Energy Plan.
- Existing programs focused on financing, energy management, and trade ally support were further refined in 2019-2020 to address market opportunities and advance industry capacity building. These programs include Strategic Energy Management, Onsite Energy Manager, Clean Energy Improvement, TIER Loan Guarantee, and Efficiency Professionals Network. The Clean Energy Improvement Program (CEIP) reached an important milestone with two communities—the towns of Devon and Rocky Mountain House—passing municipal bylaws in support of CEIP.

The Municipal Advisory Committee for CEIP continues to see increasing participation and municipal representation, enabling province-wide progress on CEIP.

- Education and capacity-building activities continued to report strong outcomes through the Community Generation Capacity Building program, energy efficiency education grants, and technical training initiatives.
- The Board supported the agency's submission to the Alberta Utilities Commission (AUC) Distribution Inquiry, as a strategic forum to communicate the value of integrating energy efficiency into the utility system. The agency's submission focused on energy efficiency programming as an effective cost and risk management tool for the distribution system and larger utility system.
- The Board's Audit and Finance Committee is developing a risk management program that includes the business continuity plan and addresses non-financial risks.
- Working with an external service provider, systems and processes for demand-side management and customer relationship management are being implemented.
- A shared services agreement was initiated to provide back-office start-up support to the Alberta Indigenous Opportunities Corporation (AIOC), a new government agency created in November 2019 to provide loan guarantees for sustainable resource development projects.
- The Board would also like to acknowledge that the agency's CEO, Monica Curtis, was recognized as one of Canada's Clean 50 award recipients and the agency was also nominated for an Alberta Emerald Foundation Award.

“Energy Efficiency Alberta has evolved in its three years of operation to focus on business solutions that support key Alberta industries and communities. During 2019-2020, we refined innovative financing tools that are ready for market, saw tangible results from energy management programs that will strengthen Alberta's environmental, social and governance performance, and expanded the knowledge and skills of Alberta's workforce to support changing needs within industry.”



Vittoria Bellissimo, Vice Chair,  
Energy Efficiency Alberta  
(performing duties of the Board Chair)

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## Board of Directors 2019-2020

**David Dodge**, Chair (to Jan. 17, 2020)  
**Vittoria Bellissimo**, Vice Chair  
**Kyla Sandwith**, Secretary  
**Helen A. Rice**  
**Peter Love**  
**Carissa Browning**  
**Glynis Carling**  
**Shafraaz Kaba**  
**Sandra Moore**  
**Julia-Maria Becker**

# Investments in energy efficiency are increasing business competitiveness

Alberta businesses are increasingly seeing the competitive advantages to integrating environmental, social and governance (ESG) factors into their bottom lines. By helping to reduce emissions, water usage, and operations and maintenance costs, energy efficiency measures are helping businesses achieve their ESG goals.

Investing in energy efficiency enables businesses to reduce their operating costs and manage risks. Those cost savings can then be reinvested back into the business. Reducing energy costs across industry and public institutions will make Alberta more competitive. Better ESG performance will also help attract investment, as investors increasingly look at ESG factors including greenhouse gas emissions reductions.

## Businesses are seeing results

- **CSV Midstream** a Calgary-based, natural gas and liquids infrastructure company, hired an energy manager using the On-site Energy Manager program and saved \$680,000 in operating costs while optimizing its operating processes by 38 per cent.
- **Lafarge's** two Edmonton ready mix facilities (Petroway and Winterburn) participated in the Strategic Energy Management program. Winterburn saw an eight per cent improvement in natural gas use and a 16 per cent improvement in electricity use. At Petroway, natural gas consumption (per unit of production) was down 23 per cent and electricity use dropped about 110,000 kilowatt hours (kWh). The plant saved about \$85,000 per year on electricity and gas combined.



# Energy Efficiency Alberta is accelerating the adoption of proven energy efficiency solutions

As a key link in the technology acceleration chain in the province, Energy Efficiency Alberta is facilitating technology adoption. By providing opportunities for technical training and encouraging technology uptake, Energy Efficiency Alberta builds capacity and advances the skill sets of our tradespeople. Energy efficiency technologies can be transformative in certain industries and we are witnessing leaps in technology adoption. The application of new technology also builds momentum and allows for continuous improvements in other areas of the business.

## Facilities are adopting new technology solutions

- **Triovest** manages a suite of commercial, industrial and retail buildings. They joined the Strategic Energy Management program at three of their Edmonton buildings: 9925 building, Twin Atria building and ATB Place. With the assistance of an energy manager and program support, Triovest undertook equipment and technology upgrades, and incorporated several impactful behavioural changes. Across the three buildings, Triovest reduced energy consumption an average of 7.6 per cent in 2019—a total calculated energy cost avoidance of \$437,113 for the year.
- **West Fraser's** pulp and paper mill, Slave Lake Pulp, invested in new heat exchanger equipment through the Custom Energy Solutions program. Three new glycol heat exchangers capture waste heat from the engines running at the mill, a project which is now saving the mill 8,000 gigajoules (GJ) of natural gas monthly and, over the long run, is expected to result in lifetime GHG emissions reductions of 32,064 tonnes CO<sub>2</sub>e\*.

\* CO<sub>2</sub>e = Carbon dioxide equivalent.



# Energy efficiency is making life better for Albertans

Energy efficiency enhances quality of life for Albertans by reducing energy costs and increasing indoor space usability and comfort in public institutions. In fact, energy efficiency measures are one of the easiest ways to trim operational costs without trimming services. Enabling public institutions to reduce 'energy waste' improves cost management and opens up reinvestment opportunities. Local community organizations and municipalities can improve knowledge, lower costs and stimulate new local economic opportunities by investing in energy efficiency.

## Community institutions are benefiting

- **Alberta Health Services' South Health Campus**, a Calgary acute care hospital, joined the Strategic Energy Management program and saw a reduction of approximately 1,600,000 kWh in the first year (or a savings of approximately \$160,000). They also saw a reduction in natural gas consumption of approximately 26,000 GJ for that year (or about \$97,000 in savings). These are impressive savings for a building that is less than 10 years old.
- **The Federation of Calgary Communities**, which serves 151 community associations, participated in the Non-Profit On-site Energy Manager program at 19 of its members' sites. The energy manager calculated an anticipated total of over 279,000 kWh per year in energy savings, 1,900 GJ per year in natural gas savings, and financial savings of around \$48,000 per year.





# Results since program launch by market segment (April 1, 2017 - March 31, 2020)

	Industrial	Commercial	Non-Profit & Institutional	Household	Other <sup>1</sup>	Total
Total Investment by Energy Efficiency Alberta (\$M)	\$42	\$52	\$23	\$132	\$43	<b>\$292</b>
Lifetime Value of Energy Saved and GHG Emissions Reduced (\$M)	\$46 <sup>2</sup>	\$135 <sup>2</sup>	\$26	\$599	–	<b>\$806</b>
Participants (#)	285	2,105	651	233,724	–	<b>236,765</b>
Projects (#)	427	3,522	903	241,391	–	<b>246,243</b>
Products (#)	17,640	896,723	310,572	17,080,668	–	<b>18,305,603</b>
Lifetime GHG Emissions Reductions (M tCO <sub>2</sub> e)	0.9	1.0	0.2	4.7	–	<b>6.8</b>
New Solar Capacity (MW)	–	19	2	16	–	<b>37</b>

<sup>1</sup> Includes other agency investments in complementary programs related to raising awareness, project grants, development of innovative financing tools, industry capacity building and agency administration. These investments support the agency's programs in each sector, and directly and indirectly generate additional cost savings and emissions reductions that are not currently quantified and reported.

<sup>2</sup> Investments in the industrial and commercial sectors include in-progress projects whose savings are not reported in Lifetime Value of Energy Saved and GHG Emissions Reduced. **A further agency investment of \$4.7 million in these projects will result in Lifetime Value of Energy Saved and GHG Emissions Reduced of \$50 million.**



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**Want to learn more about  
energy efficiency?**

Visit our website at  
[efficiencyalberta.ca](http://efficiencyalberta.ca)

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**Have any questions or comments?  
Please contact us.**

[hello@efficiencyalberta.ca](mailto:hello@efficiencyalberta.ca)  
1-844-357-5604

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